Rajath Devadatta Bharadwaj

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Education

- **Master of Science Computer Science - AI Specialization** — Windsor, ON
  University of Windsor — *Sep 2022 - Present*
  Courses: *Intro to AI, Statistical Learning, Topics in AI, Neural Networks and Deep Learning*
- **Bachelor of Engineering - Computer Science** — Bangalore, India
  KS School of Engineering (KSSEM) - GPA:8.51 — *Aug 2017 - Aug 2021*
  Courses: *Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Networking, Databases, Java*

Profile of Skills

- **Languages**: Python, JAVA
- **Frameworks**: SpaCy, Streamlit, TensorFlow, PyTorch/Lightning, Django, TensorRT, Huggingface, Weights & Bias
- **Tools**: Kubernetes, Docker, GIT, NVIDIA NGC
- **Platforms**: Linux, Web, NVIDIA Jetson, Raspberry, GCP
- **Soft Skills**: Leadership, Event Management, Writing, Public Speaking

Experience

- **Graduate Assistant** — In-person
  University of Windsor — *Sept 2022 - Present*
  - **Handling Labs**: Teaching Masters in Applied Computing (MAC) students concepts of Advanced Computing Concepts using interactive Canva slides.
- **DL Fellow** — Remote
  Fellowship.ai — *Sept 2021 - Jan 2022*
  - **Conversational AI**: Built an Athlete/Fitness coach bot using RASA. Blenderbot 2.0 was used to handle fallbacks RASA couldn't handle.
  - **Fallbacks**: Semantic Document Search or SDS was leveraged in case both these bots weren't able to convincingly answer a question.
- **AI Solution Architect** — In-person
  BrainGrid Technologies — *Nov 2021 - Sept 2022*
  - **Optimizing Inference**: Developed models on the TensorRT framework to reduce inference time loads resulting in increasing company's efficiency to implement inference by 3%.
  - **NVIDIA DGX**: Led workshop for clients on NVIDIA's DGX systems along with NGC Containers, received positive feedback on training with a business conversion around of 1%.
  - **NVIDIA Jetson**: Mentored clients on preforming model inference using the Jetson Nano for edge use cases.

Projects

- **Automated Trading - (DL, Reinforcement Learning, Selenium, Sentiment Analysis, Forecasting)(WIP)**: Developed software to trade stocks & options market end to end without human intervention, which resulted in getting 79% of trades correct. **Tech**: Python, Streamlit, Stable Baseline-3, OpenAI - Gym, Selenium, TensorFlow, FBProphet - **November 21 - Present**
- **DL-based Gaming (Deep Learning, Computer Vision)**: Architected a DL model to analyze a game's frames and predict the next move. Performed similarly to a newbie with an accuracy of 85%. **Tech**: Python, Tensorflow & OpenCV.
- **Action Recognition Tagging (Deep Learning, Computer Vision)**: Recognizes activity currently occurring in a frame, achieved an accuracy of 82%, resulting in a nearly 2% increase in business revenue. Tech: Python, Tensorflow, openCV
- **Conversational AI (Chatbot, NLP, Blenderbot)**: A chatbot that responds to all questions on sports and fitness depending on a user's answers to a few pre-programmed questions. **Tech**: Python, Rasa, Blenderbot, Huggingface
- **Autograder (Deep Learning, Computer Vision)**: An LSTM-CNN model to grade mathematics answer papers. **Tech**: Python, Tensorflow, NLP, Streamlit

Blogs/ Seminars & Tutorials

- **How does Orthogonalization relate to Machine Learning**:
- **TF.data.experimental-service**:
- **Auto Encoders using Tensorflow (SRM University, Chennai)**:
- **Reinforcement Learning**:

Volunteer Experience

- **AI Lead at Google Developer Student Clubs, KSSEM** — Bangalore, India
  Conducted online and offline technical training impacting over 200+ students. — *Sept 2020 - Sept 2021*
- **Machine Learning Developement Club (MLDEVC)** — Bangalore, India
  Started an ML Club to benefit undergrad students in college — *Apr 2018 - Sept 2021*